REMARKS

This paper is responsive to the Office Action dated June 30, 2008 (the "Office Action").

Claims 1-117, 119, 121-122, and 124-127 are pending, including new claim 127.

Claims 1-7, 14, 16, 17, 29-35, 42, 44, 45, 57-63, 70, 72, 73, 85-91, 98, 100, 101, 114-117, 119, and 124-126 stand rejected.

Claims 8-13, 15, 18-28, 36-41, 43, 46-56, 64-69, 71, 74-84, 92-97, 99, 102-112, and 121-122 are under objection.

Claim 113 has been allowed.

The amendments add no new matter. Support for the amendments may be found throughout Applicant's Specification and Drawings, for example in original claim 10. While not conceding that the cited reference(s) qualify as prior art, but instead to expedite prosecution, Applicant has chosen to respond as follows. Applicant reserves the right, for example in a continuing application, to establish that the cited reference(s), or other references cited thus far or hereafter, do not qualify as prior art as to an invention embodiment previously, currently, or subsequently claimed.

The amendments to the claims have been made to expedite prosecution. Applicant respectfully submits that the pending claims are allowable in view of the following remarks and the above amendments, and respectfully requests reconsideration of the pending rejections.

Allowable Subject Matter

Applicant expresses gratitude for the indication that objected claims 8-13, 15, 18-28, 36-41, 43, 46-56, 64-69, 71, 74-84, 92-97, 99, 102-112, and 121-122 would be allowable if rewritten in independent form including all the limitations of the respective base claims and any intervening claims. Applicant wishes to maintain these claims in dependent form in view of the following remarks regarding the allowability of the respective base claims.

Applicant expresses gratitude for the indication that claim 113 is allowed.

Rejection of Claims under 35 U.S.C. § 103

Claims 1-3, 29-31, 57-59, 85-87, 114-117, 119, and 124 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,282,170 issued to Bentall et al. ("Bentall"), in view of U.S. Patent No. 6,577,595 issued to Counterman ("Counterman"). Claims 4-7, 14, 16, 32-35, 42, 44, 60-63, 70, 72, 88-91, 98, and 100 stand rejected under § 103(a) as being unpatentable over Bentall in view of Counterman, and further in view of U.S. Patent No. 6,728,205 issued to Finn, et al. ("Finn"). Claims 17, 45, 73, and 101 stand rejected under § 103(a) as being unpatentable over Bentall and Counterman in view of Finn and further in view of U.S. Patent No. 6,430,150 issued to Azuma, et al. ("Azuma"). Claim 125 stands rejected under § 103(a) as being unpatentable over Bentall in view of Counterman[1] and U.S. Patent No. 5,130,974 issued to Kawamura et al. ("Kawamura"). Claim 126 stands rejected under

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[1] The Office Action does not explicitly cite Counterman in the rejection of claim 125. Applicant understands this omission to be a clerical error, since claim 125 depends on claim 1, and the pending rejection of claim 1 relies on Counterman.

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§ 103(a) as being unpatentable over Bentall in view of Counterman and Kawamura, and further in view of U.S. Patent No. 4,287,592[2] issued to Paulish, et al. ("Paulish").

Applicant respectfully submits that the claims are allowable under § 103(a) because a person having ordinary skill in the art would not make the proposed combination of references, and because the cited portions of the references fail to disclose each limitation of Applicant's claims.

More specifically, the cited portions of Counterman do not disclose what the Office Action asserts as being disclosed. Further, if the Office Action's characterizations of Counterman and Bentall are correct (a point which Applicant does not concede), then a person having ordinary skill in the art would not combine the references as suggested by the Office Action.

1. The cited passages fail to disclose each limitation of Applicant's claims.

Applicant's claim 1 includes <u>receiving information from a candidate node, with the information indicating that the candidate node has sufficient resources to support a virtual path</u>. This limitation, among others, is not disclosed in the cited portions of the references.

As an initial matter, the Office Action ignores this limitation. In the discussion of claim 1, the Office Action fails to acknowledge or discuss Applicant's limitation regarding information received "from a candidate node." This aspect of Applicant's claim 1 is not discussed in the Office Action with relation to the teachings of the cited references.

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[2] The Office Action includes a citation for Paulish on p. 7. This citation uses the patent number for Kawamura. Applicant understands this mismatch to be a clerical error. Applicant has instead used the patent number for Paulish that was provided on a Form 892 in a previous Office action, dated January 22, 2008.

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The candidate node in Applicant's claim 1 is a source of information indicating that the candidate node has sufficient resources to support a virtual path. With regard to "resources," the Office Action relies on a newly cited reference, Counterman. With regard to the relevance of Counterman to claim 1, the Office Action asserts only the following single sentence:

> Counterman discloses identifying a plurality of nodes with resources necessary to support virtual path (column 2, lines 32-41).

Office Action, p. 3, lines 6-8.

The Office Action fails to point to any teaching in the cited passages of a candidate node that provides information regarding sufficient resources. The Office Action fails to point to any teaching in the cited passages of such information that is received from a candidate node. The Office Action is thus silent with regard to Applicant's limitation of receiving information "from a candidate node."

Indeed, the cited passages of Counterman fail to disclose this limitation of Applicant's claim 1. The cited passages are reproduced in the following excerpt:

> Network resource management typically involves allocating resources so that the network provides the necessary buffering and link bandwidth that is needed to support a connection, or route, and its associated service quality, which is typically measured by bounded throughput, delay and loss. The network management system makes decisions on whether to admit the connections or whether to reserve resources, and other decisions each of which is based on a description of the traffic and an assessment of the available network resources at a given time. For example, the network resource management system can respond to a user's request for the transport of a data signal by analyzing the traffic on the network to determine if the network has sufficient resources to support this new connection. Only if the network resource management system determines that such resources are available will it accept the user's connection request.

Counterman, 2:32-48 (emphasis added).

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The cited passage of Counterman discloses a "network management system" (also called a "network resource management system") that makes decisions such as whether to admit connections or to reserve resources. Counterman's network management system also makes other decisions based on a description of network traffic and an assessment of the available network resources at a given time. *Id.* The network management system "may be a software program or tool that manages the environment of the network." *Id.* at 6:36-39.

However, Counterman's network management system is not described as being a node. Indeed, the teachings of the cited reference make clear that <u>Counterman's network management</u> <u>system is not a component node in a network</u>. To the contrary, an example of Counterman's network management system is shown in FIG. 5 (*see*, 4:35-38) as an overall network that includes the multiple nodes of the network. This network includes nodes 72-80, but Counterman does not teach that any of these nodes performs the operations of the cited network management system. Rather, the network management system assesses the links between a plurality of nodes. *See*, Counterman, 7:43-47. The cited network management system operates on a network as a whole, since it "manages the environment of the network." *See, id.* at 6:36-39.

A person having ordinary skill in the art would readily understand that Counterman's network management system is not a node in a network. Moreover, Counterman's network management system is not described as being (a) a candidate node (b) from which information is received, with (c) the information indicating that the candidate node has (d) sufficient resources to support a virtual path. These limitations are absent from the cited passages of Counterman.

Moreover, these limitations are also absent from Bentall, as the Office Action correctly notes. *See*, Office Action, p. 3, lines 4-6. The cited passages of Finn, Azuma, Kawamura, and Paulish do not remedy these shortcomings.

Accordingly, the cited passages fail to disclose the limitation of "receiving, from a candidate node, information indicating that said candidate node has sufficient resources to support said virtual path." At least for this reason, independent claim 1 and all claims dependent therefrom are allowable under § 103(a). At least for similar reasons, independent claims 29, 57, and 85 and all claims dependent therefrom are also allowable under § 103(a).

2. A skilled artisan would not combine the references as proposed by the Office Action.

The rejection of Applicant's claim 1 relies on a combination of Bentall with Counterman. The Office Action proposes that:

> It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Bentall with the teaching of Counterman to implement the process of checking capacity of link at each node by a network management so that a given virtual path would be re-established through an alternate route with sufficient bandwidth.

Office Action, p. 3, lines 8-12.

Applicant respectfully disagrees with this conclusion. First, Applicant notes that this combination of Bentall with Counterman is relevant only if, as proposed in the Office Action, Counterman discloses the limitation of "receiving, from a candidate node, information indicating that said candidate node has sufficient resources to support said virtual path." As noted above, this proposition is inapposite, at least in view of Applicant's above arguments.

Moreover, a person having ordinary skill in the art would not combine the teachings of Bentall and Counterman, because Bentall does not require and would not even benefit from indications of sufficient resources from candidate nodes (even if Counterman could possibly be seen as teaching such indications). In Bentall, a determination of routes with "sufficient capacity

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for the path" is not made by anything even comparable to candidate nodes, but by a chooser node

that is located at one end point of a failed link. *See*, Bentall, at 1:56-66. Operations of the

Bentall chooser node are described in the following excerpt:

> The chooser node receives floods of search messages from the
> sender via tandem nodes, at step 140. The flooding instance of
> messages searches out all spare capacity between the sender and
> chooser, but does not assign any capacity to a specific path, unlike
> previous methods. At step 141, the chooser node builds a database
> of the possible alternative routes, including at least the hop counts
> of each route, the spare capacity of each link on the route, and
> other parameters which may assist in enabling the chooser to select
> the most appropriate alternative route for each virtual path affected
> by the failed link. To restore the affected virtual paths, the chooser
> can begin assigning capacity as soon as the first complete path
> arrives. Assignment depends on the particular assignment
> algorithm used. Various types of assignment algorithm are
> conceivable, with differing results in terms of efficiency of use of
> the spare capacity. A simple FCFS (First Come First Served)
> algorithm simply assigns virtual paths to spare capacity in a
> random fashion as soon as the capacity is identified by receipt of
> flood messages from the sender.
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> The chooser acknowledges the shortest route for each path with
> sufficient capacity for the path, by sending a message back to the
> sender, at step 142 of FIG. 9. The database of alternative routes
> can be amended to reflect the reduced spare capacity available for
> other virtual paths, at step 143. The chooser continues through its
> list of affected virtual paths, until all have been restored, or until all
> remaining virtual paths are blocked by a lack of spare capacity on
> alternative routes, as shown at step 144.

Bentall at 7:61—8:22 (emphasis added).

Bentall's chooser node is therefore equipped to select alternative routes for each virtual

path affected by a failed link. This operation involves identifying shortest routes that have

sufficient capacity for each path. Thus, the Bentall system has no need for candidate nodes to

make indications of sufficient resources; this determination is made by the chooser node.

Bentall's chooser node aggregates information on various alternative routes and "select[s] the

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most appropriate alternative route for each virtual path" (*see*, Bentall, 7:66-8:5). Bentall teaches this selection operation by the chooser node, and would not benefit from this determination being made by other nodes—especially since these other nodes would not have the full set of information that is received by the chooser node. Thus, even if Counterman could be seen as disclosing the "receiving, from a candidate node, information indicating that said candidate node has sufficient resources to support said virtual path" (again, a point with which Applicant disagrees), this feature would not be useful or even usable in Bentall.

Moreover, Applicant notes that the proposed combination of Counterman and Bentall would certainly not be helpful to achieve the goal proposed in the Office Action. The Office Action proposes on p. 3 that the teachings of Counterman could be used to modify the system of Bentall "to implement the process of checking capacity of link at each node by a network management." The goal would be "so that a given virtual path would be re-established through an alternate route with sufficient bandwidth." However the Bentall chooser already identifies alternate routes with sufficient capacity, as discussed above and as set forth in Bentall at 8:14-16. Thus, Bentall does not need the teachings of Counterman to achieve this goal. A person having ordinary skill in the art would not modify Bentall to achieve a goal that is already achieved by the teachings of Bentall itself. Thus, even this particular goal set forth in the Office Action would not lead a person having ordinary skill in the art to combine the cited references.

Applicant submits that for these reasons a person having ordinary skill in the art would not make the proposed combination of Bentall and Counterman. At least for this additional reason, independent claim 1 and all claims dependent therefrom are additionally allowable under § 103(a). At least for similar reasons, independent claims 29, 57, and 85 and all claims dependent therefrom are also additionally allowable under § 103(a).
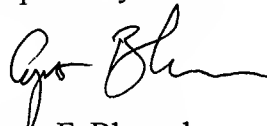
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New claim

New claim 127 depends on independent claim 1 and are therefore allowable at least for the reasons discussed above.

CONCLUSION

In view of the amendments and remarks set forth herein, the application and the claims therein are believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned.

If any extensions of time under 37 C.F.R. § 1.136 are required in order for this submission to be considered timely, Applicant hereby petitions for such extensions. Applicant also hereby authorizes that any fees due for such extensions or any other fee associated with this submission, as specified in 37 C.F.R. § 1.16 or § 1.17, be charged to deposit account 502306.

Respectfully submitted,

Cyrus F. Bharucha
Attorney for Applicant, Reg. No. 42,324
Telephone: (512) 439-5097
Facsimile: (512) 439-5099

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